BEST PRACTICES

This Summer, Be Water Wise!

With population growth and climate change, the need for safe, reliable water is of utmost importance. We must efficiently use our water resources, especially in the summer when it is estimated that nearly 50% of water used for irrigation is wasted due to evaporation, wind, or runoff from inefficient watering techniques (source: EPA's watersense webpage). This summer, be "water wise" with your landscape and lawn with these water saving tips and tricks.

There are many gardening books for the Pacific Northwest and resources online to help you learn about the soil and water requirements of native and non-invasive ornamental plants that are well suited to the Pacific Northwest.

Landscaping Tips

Water wise landscapes are just what their name suggests. They are landscapes that are wise about water, or rather, their caretakers are. These landscapes efficiently use water by means of multiple techniques that require less money and time to maintain. Conserving water puts less strain on water resources during the times when we need and use the most water.

The following seven water wise landscape principles can be used as a guide to creating or improving a water efficient landscape. Whether you are transforming parts of your existing landscape to be water wise or starting from scratch, the principles remain the same.

1. **Planning and Design**

Take note of existing microclimates of your landscape, including amount of sun, shade, soil type and moisture. Make sure you have picked the right plant for the right place. As an example, plants that require a lot of water should be planted in moist areas where they will naturally receive the water they need. On the other end of the spectrum, plants that don't require a lot of water should be planted in dry areas. This concept is known as hydrozoning because you are creating zones in your landscape that require different amounts of water.

2. **Soil Improvement**

The structure of your soil will determine its water holding capacity. Clay soils will hold water for longer periods of time, whereas water will run through sandy soils rather quickly. To determine your soil type, you can obtain a soil test from the Thurston Conservation District (http://www.thurstoncd.com/working-lands/soil-testing/). Then make amendments as suggested. Without getting a soil test, it is generally beneficial to mix compost to a depth of 10-12 inches of the soil in planting beds. This will improve soil structure and water holding capacity.

3. **Practical Turf Area**

Lawns are traditionally the receptors of large amounts of water in the summer, but there are several techniques that can be employed to greatly reduce water requirements for lawns. The first technique is to minimize lawn area

to places where you need it, for instance, a play area. Lawns will need to be watered through the summer to stay green, so replacing as much area as possible with native plants that require far less water will help lower water consumption. Second, mulch mowing and mowing high (approximately 2 inches) will reduce your lawn's watering needs. Taller grass also cools the soil and encourages deep roots. If you mow your lawn too short, root growth slows down, making the grass more susceptible to heat and drought. Third, consider letting your lawn go dormant during the summer. Dormancy can be achieved by watering deeply once a month. When the fall rains begin, your lawn will soon be its usual lush green.

4. Efficient Irrigation

When necessary, all areas of your landscape should be deeply watered during morning hours when evaporation is at its lowest. This means soaking the soil and then only watering again when the soil is dry about 2" deep. Not only does this save water, but it causes plant roots to grow deeper in search of water. Watering too frequently can cause roots to suffocate because the soil's air spaces will remain water logged. This excessive watering ultimately leads to disease as the plants become increasingly stressed from lack of air.

Create an irrigation schedule. Water when your soil is dry about one to two inches deep for lawns and annuals and two to four inches deep for shrubs and trees. Use soil moisture meters to tell how deeply your water is percolating, or stick a trowel in the ground to see how far the water has reached. If using a moisture meter, you'll likely find that once a week in the summer is plenty (even less for shady sites).

Knowing where to water is an important part of efficient irrigation. In your garden, you generally want to water as close to the soil surface as possible, avoiding the plant leaves. Disease can spread if the leaves get watered. Perennials, shrubs and trees have roots that soak up water under their drip line and reach a depth of about 12", so target watering there. Lawns and annuals have roots that extend about 6" deep.

For small landscaped areas or gardens, water by hand using a water wand. To increase water efficiency, you can place a small perforated pipe vertically next to the plant and water directly into it. Porous pipe is an inexpensive drip irrigation method that works by seeping water along its entire length. It is best used on level sites with a short distance to water. In all cases, the result should be that water soaks directly into the ground rather than running off.

For larger or uneven/slopped landscaped areas or gardens, try drip tubing. You can purchase the tubing either with ultra-low-flow emitters pre-spaced along the tubing, or you can customize the spacing by installing the emitters yourself. To avoid clogging and to keep the flow even, use a pressure regulator and a filter. A pressure-compensating emitter must be used on a slope.

When watering lawns, it is important to remember that **your lawn only needs 1" of water per week in the summer months**. This can easily be measured by placing small cans (a tuna can is 1 inch deep) around the lawn and turning on the sprinkler. Record how long it takes for the can to fill 1 inch. When you water your lawn, split the watering time in two, and water on two different days to ensure the water soaks in deeply (i.e., if it takes 20 minutes for your sprinkler to water 1 inch, then water ten minutes one morning and ten minutes the next morning). Remember that grass does best if the roots are allowed to dry out a little between watering. Your lawn will let you know when it needs a drink by not springing back after you step on it.

Irrigation sensors and timers can be very handy when your landscape has different watering needs. If you have an existing in-ground automatic irrigation system, consider attaching a rain sensor to shut off your system when it

rains. These are relatively inexpensive and typically run between $20-30. Hose timers are also helpful in case you forget to turn off the sprinkler or hose. Just be sure that you are setting the time correctly so you do not overwater.

5. Mulch plant beds

Mulching around plants reduces evaporation from the soil and helps maintain the soil structure by protecting the soil from rain. This allows the soil to continually soak up water because it remains spongy and porous, rather than becoming compressed from the rain.

Two to four inches of mulch around plants will help retain soil moisture and provide nutrients as it breaks down over time. Mulch also reduces the competition for water between plants and weeds as it suppresses weed growth. To calculate the amount of mulch you need for your area, you can visit http://landscapecalculator.com/calculators/mulch

6. Low Water-Use Plants

All native plants have adapted to thrive in the wet, mild winters and dry summers of the Pacific Northwest. Native plants are adapted to our climate, diseases, and pests; and therefore, require less maintenance and care compared to non-native plants. However, there are also non-native species, such as lilac, that are recommended for our temperate climate, are non-invasive and are drought tolerant. When choosing plants, look for plants adapted to Zone 8 of the hardiness zone map. The Thurston County Common Sense Gardening Handbook and The Plant List from SavingWater.org (found at the URLS below) are useful resources for finding low water use plants.
https://www.co.thurston.wa.us/health/ehcsg/pdf/PlantList.pdf
https://www.savingwater.org

7. Appropriate Maintenance

When designed appropriately, a mature water wise landscape should require far less maintenance than one that disregards the water requirements of plants. Watering will need to be consistent through the first three growing seasons, but can then taper off as the plants establish in their environment. Most native/drought resistant plants do not need to be watered after they are well established (usually 2-3 years). Watering after the first few years should occur only when the plants begin to wilt and show signs of water stress.

Source: Stream Team News, Summer 2014